

# Source Water Protection Program

## Draft 2004 Updated SWP Project Priority List

| SWP                                                     | BP | Pop.   | WaterSystem Nam                       | Project No          | WS Problem                                                                                                                                                                                                                                                     | Project Description                                                                                                                                                                                                                                             | Costs        | FY   |
|---------------------------------------------------------|----|--------|---------------------------------------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------|
| A                                                       |    | 200000 | Contra Costa Water District           | 0710003 022         | There are over 250 individual, unfiltered storm drain connections to the canal. PCAs include microbial contaminations (including potential fecal contamination) from dairy and other agricultural land drainage into Canal; hydrocarbon, chemical and others.  | Storm Drainage Management Program                                                                                                                                                                                                                               | \$20,000,000 | 2004 |
| <b>Total of projects in SWPP Category A = 1 project</b> |    |        |                                       |                     |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                 |              |      |
| <b>Total Cost for Projects in Category A :</b>          |    |        |                                       | <b>\$20,000,000</b> |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                 |              |      |
| SWPP-A                                                  | 11 | 50     | SOUTH SAN JOAQUIN IRRIGATION DISTRICT | 5010040 002         | Primary concern is microbial contamination from 1)cattle activities on watershed, 2) sanitary facilities (pit toilets) in the recreational areas, and 3) body contact recreation at the reservoir. This project would address all three sources.               | Project will include berming and fencing the canal at critical areas to preclude cattle access, rerouting selected drains to prevent direct discharge of ag drainage to canal, construction of new sanitary facilities at the park to eliminate pit toilets, po | \$2,000,000  | 2000 |
|                                                         | 11 | 600    | San Francisco Regional Water System   | 3810001 122         | (SFPUC No. 21) Contaminants of concern are essentially microbial, however, there is the potential from volatile organic compounds. The sources of these contaminants are farms ranches, dwellings and other developments within the hydrologic boundary of the | These contaminant sources would be addressed by the acquisition of critical watershed land which is determined to be within high water quality vulnerability (see Attachment for continuation)                                                                  | \$2,000,000  | 2000 |
|                                                         | 11 | 770    | Squaw Valley Public Service District  | 3110020 004         | The attached Draft Squaw Valley source Water Assessments describes the types of contaminants and the associated PCAs. The document also provides a relative ranking of the well exposure to potential sources of contamination.                                | Squaw Valley PSD Source water Protection Program. The project will identify, locate and map test wells, monitoring wells and abandoned wells that may create a conduit for contaminants to enter the groundwater. More than 50s of these wells exist.           | \$75,000     | 2001 |
|                                                         | 7  | 600    | San Francisco Regional Water System   | 3810001 118         | (SFPUC No. 16) Microbial contaminants for human sanitray waste associated with undeveloped overnight backpacking and horse camping too close to lakes, streams and rivers in the watershed.                                                                    | The contaminants of concern would be addressed by increasing the number of signes within Yosemite National Park (Hetch Hetchy & Eleanor Watersheds) using NTS sign pattern and design. These signs would inform users of regulations and proper waste disposal  | \$10,000     | 2000 |

| SWP    | BP | Pop.    | WaterSystem Nam                     | Project No  | WS Problem                                                                                                                                                                                                                                                      | Project Description                                                                                                                                                                                                                                            | Costs       | FY   |
|--------|----|---------|-------------------------------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------|
| SWPP-A | 7  | 600     | San Francisco Regional Water System | 3810001 112 | (SFPUC No. 6) An existing diversion structure to intercept contaminated run off has an unlined channel that allows seepage to Moccasin Reservoir.                                                                                                               | The contaminants of concern would be addressed by lining with concrete the Grizzly Creek diversion channel to prevent seepage contaminated with microbials and chemicals from reaching Moccasin Reservoir.                                                     | \$500,000   | 2000 |
|        | 7  | 600     | San Francisco Regional Water System | 3810001 117 | (SFPUC No. 13)The existing Priest Reservoir diversion structure which intercepts contaminated run off has periodically been over topped during intense fall storm events.                                                                                       | The contaminants of concern would be addressed by improving existing diversion structure on Rattlesnake Creek to prevent run off contaminated with microbials and chemicals from reaching Priest Reservoir.                                                    | \$200,000   | 2001 |
|        | 7  | 20635   | Santa Fe I.D.                       | 3710023 001 | SWPP Joint reservoir project; urban runoff contaminants impact raw water quality                                                                                                                                                                                | SWPP Joint reservoir project; urban runoff collection/diversion system                                                                                                                                                                                         | \$2,000,000 | 2000 |
|        | 7  | 438000  | FRESNO, CITY OF                     | 1010007 011 | SWP-Enterprise Canal; groundwater overdraft and a declining water table have dictated construction of a 20MGD surface water treatment plant in NE Fresno. The raw water conveyance to this facility includes a 25 mile reach of unlined irrigation canal that i | Protect canal from erosion, agdrainage and tail water discharges. Plan and implement appropriate improvements identified in the San Joaquin Sanitary Survey. Provides water quality protection for water supply to the Surface WTP facility and will reduce th | \$1,100,000 | 2002 |
|        | 5  | 200000  | Contra Costa Water District         | 0710003 021 | Upper Kellogg Creek Fencing Project-Los Vaqueros Watershed; microbial and TDS contamination of primary stream tributary to Los Vaqueros Reservoir. A 1/2 mile long by 480 feet wide buffer zone would be created to eliminate access of domestic livestock.     | Fence along Upper Kellogg Creek to eliminate access by domestic livestock. Build two animal crossings.                                                                                                                                                         | \$200,000   | 2002 |
|        | 5  | 1200000 | East Bay MUD                        | 0110005 019 | SWPP -- Microbial (Cryptosporidium)-grazing. Disinfection By-products (TOC)-introduced from ungrazed lands.                                                                                                                                                     | SWPP -- Thorough literature searches lab studies and field studies to determine the Microbial and TOC inputs from grazed and ungrazed watershed lands.                                                                                                         | \$275,000   | 2000 |
|        | 5  | 1200000 | East Bay MUD                        | 0110005 028 | EBMUD Briones Watershed-Murray Parcel Acquisition; contamination concern for the Briones Watershed. The source that would be addressed by the proposed land acquisition are Sanitation Facilities andRural Area Runoff-Residential.                             | Acquire 3.4 acres parcel with existing house and leachfield adjacen to tributary. Discontinue use of leachfield to reduce microbiological contaminant threat.                                                                                                  | \$900,000   | 2002 |
|        | 5  | 1223400 | San Diego - City of                 | 3710020 052 | Sutherland Livestock Fencing Project; The three types of contaminants of concern are: 1) microbial pathogens 2)nutrients (phosphorus and nitrogen) and 3) sediment. The activity associated with the contaminants is cattle grazing. Cattle and their waste a   | Construct livestock fence around perimeter of lake to eliminate access by cattle.                                                                                                                                                                              | \$100,000   | 2002 |

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|--------|----|---------|----------------------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------|
| SWPP-A | 5  | 1223400 | San Diego - City of        | 3710020 050 | Otay Livestock Fencing Project; The three types of contaminants of concern are: 1) microbial pathogens 2)nutrients (phosphorus and nitrogen) and 3) sediment. The activity associated with the contaminants is cattle grazing. Cattle and their waste are the   | Construct livestock fence around perimeter of lake to eliminate access by cattle.                                                                                                                                                                            | \$150,000   | 2002 |
|        | 4  | 600     | NORTH EDWARDS WD           | 1510052 005 | Septic tanks are installed in Zone A, B5 and B10 of Wells #1 and #2.                                                                                                                                                                                            | At present, there are vacant lots next to Wells 1 and 2. The Board of Directors would like to acquire the empty lots to prevent any more septic system installation close to the well heads.                                                                 | \$24,000    | 2002 |
|        | 3  | 1576    | Willow Creek C.S.D.        | 1210015 002 | Storm Water Bypass- Willow Creek CSD water supply; Storm water runoff from state highways 299, 96 and county roads are collected by a storm water system and discharged into Willow Creek at a point up stream from the WCCSD infiltration gallery (WCCSD water | Design and construct storm water interceptor and bypass of water system infiltration galleries.                                                                                                                                                              | \$80,000    | 2002 |
|        | 3  | 2000    | North Marin WD - Pt. Reyes | 2110006 021 | Micribial and chemical contamination associated with impacts of flooding of Lagunitas Creek on Wells 2 and 3.                                                                                                                                                   | As determined by feasibility study-modifications to wellheads, well casings, enclosures and surface grading and drainage. Study due 8/31/2000 per 10/28/99 Water Supply Permit.                                                                              | \$100,000   | 2000 |
|        | 3  | 53000   | North Marin Water District | 2110003 001 | Dairy directly adjacent to reservoir. Reclassify from SRF to SWPP (6/11/01).                                                                                                                                                                                    | Develop Crypto Control Strategy installation of BMPs, sediment control structures, land/dairy purchase. Reclassify from SRF to SWPP (6/11/01).                                                                                                               | \$122,000   | 1998 |
|        | 2  | 1223400 | San Diego - City of        | 3710020 051 | Cloverdale Creek Fencing Project;The three types of contaminants of concern are: 1) microbial pathogens 2)nutrients (phosphorus and nitrogen) and 3) sediment. The activity associated with the contaminants is cattle grazing. Cattle and their waste are th   | Construct livestock fence around perimeter of lake to eliminate access by cattle.                                                                                                                                                                            | \$50,000    | 2002 |
|        |    | 1200000 | East Bay MUD               | 0110005 020 | SWPP Cryptosporidium and other pathogens have been identified with grazing activity near reservoirs and tributaries; project will address direct access of cattle / horses to ponds, streams / reservoirs in the East Bay Watershed.                            | SWPP EB watershed fencing to mitigate Cryptosporidium contamination. The project would (1) outfence approximately 30 ponds to prevent direct access of domestic animals ot the ponds and supply alternative trough watering facilities at each pond site, an | \$2,000,000 | 2001 |

**Total of projects in SWPP Category SWPP-A= 19 projects**

**Total Cost for Projects in Category SWPP-A: \$11,886,000**

| SWP                                                          | BP | Pop.  | WaterSystem Nam                      | Project No  | WS Problem                                                                                                                                                                                                                                              | Project Description                                                                                                                                                                                                                                             | Costs       | FY   |
|--------------------------------------------------------------|----|-------|--------------------------------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------|
| SWPP-B                                                       | 3  | 5429  | CAWC - Montara                       | 4110010 021 | Nitrate contamination in the Airport 3 and North Airport 2 wells is apparently migrating from agricultural property to the east. Nitrate concentrations often exceed the MCL. A shallow aquifer and proximity to the source make mitigation impossible. | Our project would focus on evaluating adjacent agricultural practices and education on BMPs, land acquisitions and /or establishing conservation easements.                                                                                                     | \$150,000   | 2000 |
|                                                              | 0  | 7434  | GOLDEN HILLS CSD                     | 1510045 007 | SWPP Rising nitrate levels due to every residence using septic systems. Ground water management.                                                                                                                                                        | SWPP Complete source water protection plan. Hire necessary engineers and hydrologists.                                                                                                                                                                          | \$50,000    | 2001 |
| <b>Total of projects in SWPP Category SWPP-B= 2 projects</b> |    |       |                                      |             |                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                 |             |      |
| <b>Total Cost for Projects in Category SWPP-B:</b>           |    |       |                                      |             | <b>\$200,000</b>                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                 |             |      |
| SWPP-C                                                       | 5  | 7200  | Los Osos Community Services District | 4010016 001 | Septic system abatement Project                                                                                                                                                                                                                         | See attachment A                                                                                                                                                                                                                                                | \$2,000,000 | 2000 |
|                                                              | 5  | 7200  | Los Osos Community Services District | 4010016 003 | Groundwater WQ Monitoring Program-See attachment A                                                                                                                                                                                                      | See attachment A                                                                                                                                                                                                                                                | \$500,000   | 2000 |
|                                                              | 3  | 4280  | CalAm - Arden                        | 3410045 004 | Nitrate contamination in the Fulton Fair Oak well is suspected to be associated with sewer or septic sources. Nitrate concentrations exceeding one-half the MCL at this well (in an established subdivision) suggest a localized source.                | We propose to initiate a planning study to inventory PCAs, and vulnerability analysis. Based on the results of our study,we anticipate our project will include one or more of the following: Upgrade/abatement of septic systems, water quality monitoring in  | \$125,000   | 2000 |
|                                                              | 3  | 18232 | CalAm - Rosemont                     | 3410034 006 | Nitrate contamination in the Montazuma well is suspected to be associated with sewer or septic sources. Nitrate concentrations exceeding one-half the MCL at this well (in an established subdivision) suggest a localized source.                      | We propose to initiate a planning study to inventory PCAs, and vulnerability analysis. Based on the results of our study, we anticipate our project will include one or more of the following: Upgrade/abatement of septic systems, water quality monitoring in | \$125,000   | 2000 |
|                                                              | 3  | 34082 | CalAm - Suburban                     | 3410010 006 | Nitrate contamination in the Point Reyes well is suspected to be associated with sewer or septic sources. Nitrate concentrations exceeding one-half the MCL at this well (in an established subdivision) suggest a localized source.                    | We propose to initiate a planning study to inventory PCAs, and vulnerability analysis. Based on the results of our study, we anticipate our project will include one or more of the following: Upgrade/abatement of septic systems, water quality monitoring in | \$125,000   | 2000 |
|                                                              | 3  | 34082 | CalAm - Suburban                     | 3410010 007 | Nitrate contamination in the Whitewater well is suspected to be associated with sewer or septic sources. Nitrate concentrations exceeding one-half the MCL at this well (in an established subdivision) suggest a localized source.                     | We propose to initiate a planning study to inventory PCAs, and vulnerability analysis. Based on the results of our study, we anticipate our project will include one or more of the following: Upgrade/abatement of septic systems, water quality monitoring in | \$125,000   | 2000 |

| SWP                                                          | BP | Pop.   | WaterSystem Nam                     | Project No         | WS Problem                                                                                                                                                                                                                                                      | Project Description                                                                                                                                                                                                                                             | Costs       | FY   |
|--------------------------------------------------------------|----|--------|-------------------------------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------|
| SWPP-C                                                       | 3  | 34082  | CalAm - Suburban                    | 3410010 005        | Nitrate contamination in the Malaga well is suspected to be associated with sewer or septic sources. Nitrate concentrations exceeding one-half the MCL at this well (in an established subdivision) suggest a localized source.                                 | We propose to initiate a planning study to inventory PCAs, and vulnerability analysis. Based on the results of our study, we anticipate our project will include one or more of the following: Upgrade/abatement of septic systems, water quality monitoring in | \$125,000   | 2000 |
|                                                              | 3  | 42000  | CalAm - Lincoln Oaks                | 3410013 010        | Nitrate contamination in the Hemlock well is suspected to be associated with sewer or septic sources. Nitrate concentrations exceeding one-half the MCL at this well (in an established subdivision) suggest a localized source.                                | We propose to initiate a planning study to inventory PCAs, and vulnerability analysis. Based on the results of our study, we anticipate our project will include one or more of the following: Upgrade/abatement of septic systems, water quality monitoring i  | \$125,000   | 2000 |
|                                                              | 3  | 135000 | SAN BERNARDINO CITY                 | 3610039 017        | The City of San Bernardino relies 100% on 47 groundwater wells for its domestic water supply. The Bunker Hill Groundwater Basin has identified plumes of VOCs, nitrates, DPCP, radiological, elevated levels of TDS, and perchlorate in excess of current MCLs. | See attached description of project                                                                                                                                                                                                                             | \$400,000   | 2000 |
| <b>Total of projects in SWPP Category SWPP-C= 9 projects</b> |    |        |                                     |                    |                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                 |             |      |
| <b>Total Cost for Projects in Category SWPP-C:</b>           |    |        |                                     | <b>\$3,650,000</b> |                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                 |             |      |
| SWPP-D                                                       | 11 | 46900  | South Tahoe PUD - Main              | 0910002 001        | MTBE contamination from leaking underground fuel tanks has contaminated or is threatening to contaminate 12 District wells. The 12 wells have been shut off.                                                                                                    | The district intends to implement a groundwater management plan, in full compliance with DWSAP assessments, that emphasizes the "early detection and immediate response" to MTBE/gasoline releases. To date, the District has prepared a draft ordinance and bu | \$1,385,000 | 2000 |
| <b>Total of projects in SWPP Category SWPP-D= 1 project</b>  |    |        |                                     |                    |                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                 |             |      |
| <b>Total Cost for Projects in Category SWPP-D:</b>           |    |        |                                     | <b>\$1,385,000</b> |                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                 |             |      |
| SWPP-E                                                       |    | 48418  | RIALTO-CITY                         | 3610038 004        | Perchlorate contamination in GW Basin                                                                                                                                                                                                                           | Drill barrier wells to stop spread of contamination                                                                                                                                                                                                             | \$2,000,000 | 2003 |
| <b>Total of projects in SWPP Category SWPP-E= 1 project</b>  |    |        |                                     |                    |                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                 |             |      |
| <b>Total Cost for Projects in Category SWPP-E:</b>           |    |        |                                     | <b>\$2,000,000</b> |                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                 |             |      |
| SWPP-F                                                       | 7  | 600    | San Francisco Regional Water System | 3810001 116        | (SFPUC No. 11) Recreational activities and unauthorized activities in the Cherry and Eleanor watersheds can cause microbial contamination or chemical releases to reach surface water sources.                                                                  | The contamination of concern would be addressed by developing pamphlets and other educational materials for distribution to all users of the Eleanor and Cherry Creek watersheds.                                                                               | \$10,000    | 2000 |

| SWP    | BP | Pop.    | WaterSystem Nam                     | Project No  | WS Problem                                                                                                                                                                                                                                                      | Project Description                                                                                                                                                                                                                                             | Costs       | FY   |
|--------|----|---------|-------------------------------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------|
| SWPP-F | 7  | 600     | San Francisco Regional Water System | 3810001 113 | (SFPUC No. 7) An existing diversion structure has periodically over topped during intense storm events allowing contaminated water to enter Moccasin Reservoir.                                                                                                 | The contaminants of concern would be addressed by constructing check dams at critical locations in the watershed to slow the hydrologic response of Moccasin Creek to prevent microbial and chemical contaminants from entering Moccasin Reservoir.             | \$2,000,000 | 2001 |
|        | 7  | 600     | San Francisco Regional Water System | 3810001 120 | (SFPUC No. 18) Contaminants of concern are sanitary and industrial wastes. A septic system that receives sewage from residential units and one industrial facility has periodically made sewage releases to the watershed.                                      | These contaminants would be addressed by upgrading the septic system. The upgrades include the following: replace the collection system, install two lift pumps and relocate septic tank and leach field away from the Tuolumne River, which is the major tribu | \$800,000   | 2001 |
|        | 6  | 1200000 | East Bay MUD                        | 0110005 029 | Pardee Reservoir WQ Protection Conservation Easement; Microbial (septic systems), nitrate (from large livestock concentrations or agricultural fertilizers), chemicals (from herbicide/pesticide use)                                                           | Establish conervation easement on 700 acres of the watershed; Project addresses disinfection by-products, chemicals and microbial on watershed, not in zones.                                                                                                   | \$1,100,000 | 2002 |
|        | 4  | 600     | San Francisco Regional Water System | 3810001 115 | (SFPUC No. 10) Microbial contamination, including fecal coliform, Cryptosporidium, and Giardia, may be deposited directly into Priest Reservoir, an unfiltered source water reservoir, from wildlife along the reservoir banks. Sediments and turbidity also ar | Alternatives including perimeter fencing, bank stabilization using rack and rip-rap, and improvements to diversion structures will be evaluated and implemented for ability to limit wildlife access and storm runoff effects.                                  | \$1,500,000 | 2000 |
|        | 4  | 600     | San Francisco Regional Water System | 3810001 126 | (SFPUC No. 27) Microbial and physical contaminants are contributed to the water supply by poorly maintained roads that cause erosion and bank disturbance in the watersheds.                                                                                    | This project will improve existing watershed roads, drainage structures and roadside slopes that are necessary for watershed activities. Improvement of these roads will reduce the potential for erosion into the reservoir and lower the contribution of micr | \$1,500,000 | 2000 |
|        | 3  | 3710    | ACWA Sutter Creek                   | 0310003 006 | System uses a 24 mile open canal, mostly earthen, to transport source water. The Canal is exposed to storm water run-off and livestock. See attached study.                                                                                                     | Watershed management projects include fencing to prevent access from livestock, storm water drainage diversions, and related improvements.                                                                                                                      | \$1,131,000 | 2000 |
|        | 3  | 53000   | North Marin Water District          | 2110003 025 | Horse manure and associated contaminants (microbials, organic precursors to DBP) from stable operation adjacent to tributary to Stafford Lake.                                                                                                                  | Develop a cooperative horse manure recycle program in conjunction with Marin County Stormwater Control Program.                                                                                                                                                 | \$15,000    | 2000 |
|        | 3  | 53000   | North Marin Water District          | 2110003 023 | Storm events increase level of microbial and agricultural runoff (cattle) and sediments (erosion) impacts to Stafford Lake.                                                                                                                                     | Buffer strip development with possible purchase of conservation easement son ranch property.                                                                                                                                                                    | \$100,000   | 2000 |

| SWP                                                           | BP | Pop.  | WaterSystem Nam                     | Project No         | WS Problem                                                                                                                                                                                                                                                 | Project Description                                                                                                                                                                                                                                             | Costs     | FY   |
|---------------------------------------------------------------|----|-------|-------------------------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------|
| SWPP-F                                                        | 3  | 53000 | North Marin Water District          | 2110003 020        | Storm events increase level of runoff with microbial and agricultural runoff (cattle) and sediments (erosion) impacts to Stafford Lake.                                                                                                                    | Construct sediment dams on tributaries of concern.                                                                                                                                                                                                              | \$60,000  | 2000 |
|                                                               |    | 500   | Sonoma County Water Agency          | 4910020 005        | The River Monitoring Stations Project will identify a wide range of contaminants that might be introduced to the water source along the Russian River corridor through contaminating activities such as spills and other discharges of chemical contaminan | Placement of water quality monitoring probes at various locations along the Russian River will measure dissolved oxygen, pH, temperature, turbidity, depth, and conductivity. Unanticipated changes in these metrics will alert the Agency of possible contamin | \$482,000 | 2001 |
| <b>Total of projects in SWPP Category SWPP-F= 11 projects</b> |    |       |                                     |                    |                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                 |           |      |
| <b>Total Cost for Projects in Category SWPP-F:</b>            |    |       |                                     | <b>\$8,698,000</b> |                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                 |           |      |
| SWPP-H                                                        | 7  | 600   | San Francisco Regional Water System | 3810001 123        | (SFPUC No. 22) A concentrated animal facility at the Glen Aulin Sierra Camp has the potential to contaminate a tributary stream in the watershed.                                                                                                          | The contaminants of concern would be addressed by instituting a water quality monitoring and manure sampling program at glen Aulin Sierra Camp corrals to assess the risk of contamination from manure and microbials.                                          | \$10,000  | 2000 |
|                                                               | 7  | 600   | San Francisco Regional Water System | 3810001 114        | (SFPUC No. 9) Microbial contaminates from human sanitary waste associated with unrestricted boat-in camping on the shore of Cherry Lake.                                                                                                                   | The contaminants of concern would be addressed by providing additional signing at the Cherry Lake boat launch that describes appropriate regulations and informs users of proper waste disposal methods.                                                        | \$3,000   | 2000 |
|                                                               | 7  | 600   | San Francisco Regional Water System | 3810001 125        | (SFPUC No. 24) A concentrated animal facility at Tuolumne Meadows has the potential to contaminate a primary stream in the Hetch hetchy watershed.                                                                                                         | The contaminants of concern would be addressed by initiating water quality monitoring and manure sampling program at Tuolumne Meadows corrals to assess risk of contamination from manure and microbials.                                                       | \$10,000  | 2000 |
|                                                               | 7  | 600   | San Francisco Regional Water System | 3810001 124        | (SFPUC No. 23) A concentrated animal facility at O'Shaughnessy Compound has the potential to contaminate the Hetch Hetchy reservoir less than 2,500 feet from the SFPUC's potable water intake.                                                            | The contaminants of concern would be addressed by initiating water quality monitoring and manure smapling at O'Shaughnessy compound corral to assess the risk of contamination from manure and microbials.                                                      | \$10,000  | 2000 |
|                                                               | 7  | 600   | San Francisco Regional Water System | 3810001 121        | (SFPUC No. 20) Microbial contaminants from human sanitary waste are associated with concentrated recreational sites, such as group camping facilities at remote locations.                                                                                 | The contaminants of concern would be addressed by removing pit toilets and replacing them with composting toilets at Lake Eleanore campground which is adjacent to the lake.                                                                                    | \$50,000  | 2002 |

| SWP    | BP | Pop.   | WaterSystem Nam                     | Project No  | WS Problem                                                                                                                                                                                               | Project Description                                                                                                                                                                                                                                             | Costs     | FY   |
|--------|----|--------|-------------------------------------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------|
| SWPP-H | 7  | 175000 | Sweetwater Authority                | 3710025 001 | Contaminants include microbial and chemical constituents associated primarily with urban and rural residential development.                                                                              | Funding would be used to purchase property in sensitive areas in order to provide control over potential microbial and chemical contamination and extend the Authority's ability to protect its source waters. Project will also include additional watershed m | \$900,000 | 2000 |
|        | 4  | 600    | San Francisco Regional Water System | 3810001 111 | (SFPUC No. 1) Microbial contamination from run-off and erosion of banks may be attributed to disrepair of the Alameda Creek tunnel outfall which discharges diverted water into the Calaveras Reservoir. | The contaminants of concern will be addressed by improvements to the tunnel. The slopes on either side of the tunnel will be stabilized and debris will be cleared, which will reduced the contribution of microbial contamination and sediment deposition into | \$250,000 | 2000 |
|        | 4  | 600    | San Francisco Regional Water System | 3810001 119 | (SFPUC No. 17) Microbial contaminants from septic system for office, residence and bunk-house at Early Intake have periodically been released to the watershed.                                          | The contaminants of concern would be addressed by improving the septic system. The improvements include the following: replace and relocate piping and leach field. Construct lift pump facility to lift sewage to new leach field.                             | \$40,000  | 2002 |
|        | 3  | 1267   | CalAm - Isleton                     | 3410012 002 | The Isleton 2 well periodically shows evidence of raw water total coliform presence, an indicator of microbial contamination                                                                             | We propose to initiate a planning study to inventory PCAs, vulnerability analysis, provide public outreach and education programs along with program elements associated with CDWSAPP                                                                           | \$95,000  | 2000 |
|        | 3  | 4280   | CalAm - Arden                       | 3410045 005 | The Fulton/Fair Oak well periodically shows evidence of raw water total coliform presence and indicator of microbial contamination                                                                       | To initiate a planning study to inventory PCAs, vulnerability analysis, provide public outreach and education programs along with program elements associated with CDWSAPP                                                                                      | \$95,000  | 2000 |
|        | 3  | 4280   | CalAm - Arden                       | 3410045 003 | The Larch Ln well periodically shows evidence of raw water totoal coliform presence and indicator of microbial contamination                                                                             | We propose to initiate a planning study to inventory PCAs, vulnerability analysis, provide public outreach and education programs along with program elements associated with CDWSAPP                                                                           | \$95,000  | 2000 |
|        | 3  | 18232  | CalAm - Rosemont                    | 3410034 004 | The Westporter well periodically shows evidence of raw water total coliform presence and indicator of microbial contamination.                                                                           | We propose to initiate a planning study to inventory PCAs, vulnerability analysis, provide public outreach and education programs along with program elements associated with CDWSAPP                                                                           | \$95,000  | 2000 |
|        | 3  | 18232  | CalAm - Rosemont                    | 3410034 005 | The Southport well periodically shows evidence of raw water total coliform presence and indicator of microbial contamination.                                                                            | We propose to initiate a planning study to inventory PCAs, vulnerability analysis, provide public outreach and education programs along with program elements associated with CDWSAPP                                                                           | \$95,000  | 2000 |
|        | 3  | 21000  | CalAm - Antelope                    | 3410031 004 | The Davidson well periodically shows evidence of raw water total coliform presence and indicator of microbial contamination                                                                              | We propose to initiate a planning study to inventory PCAs, vulnerability analysis, provide Public outreach and education programs along with program elements associated with CDWSAPP                                                                           | \$95,000  | 2000 |



| SWP                                                           | BP | Pop.  | WaterSystem Nam                      | Project No         | WS Problem                                                                                                                                       | Project Description                                                                                                                                                                   | Costs     | FY   |
|---------------------------------------------------------------|----|-------|--------------------------------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------|
| SWPP-H                                                        | 3  | 42000 | CalAm - Lincoln Oaks                 | 3410013 011        | The Crosswoods well periodically shows evidence of raw water total coliform presence, an indicator of microbial contamination.                   | We propose to initiate a planning study to inventory PCAs, vulnerability analysis, provide public outreach and education programs along with program elements associated with CDWSAPP | \$95,000  | 2000 |
|                                                               | 3  | 45325 | CalAm - Parkway                      | 3410017 011        | The Rockhurst well periodically shows evidence of raw water total coliform presence an indicator of microbial contamination                      | We propose t initiate a planning study to inventory PCAs, vulnerability analysis, provide public outreach and education programs along with program elements associated with CDWSAPP  | \$95,000  | 2000 |
|                                                               | 3  | 45325 | CalAm - Parkway                      | 3410017 012        | The Conrad well periodically shows evidence of raw water total coliform presence, an indicator of microbial contamination                        | To initiate a planning study to inventory PCAs, vulnerability analysis, provide public outreach and education programs along with program elements associated with CDWSAPP            | \$95,000  | 2000 |
|                                                               | 3  | 45325 | CalAm - Parkway                      | 3410017 013        | The Briggs well periodically shows evidence of raw water total coliform presence, an indicator of microbial contamination                        | To initiate a planning study to inventory PCAs, vulnerability analysis, provide public outreach and education programs along with program elements associated with CDWSAPP            | \$95,000  | 2000 |
|                                                               | 3  | 45325 | CalAm - Parkway                      | 3410017 014        | TheStocker well periodically shows evidence of raw water total coliform presence, an indicator of microbial contamination                        | To initiate a planning study to inventory PCAs, vulnerability analysis, provide public outreach and education programs along with program elements associated with CDWSAPP            | \$95,000  | 2000 |
|                                                               |    | 53000 | North Marin Water District           | 2110003 022        | Microbial from failing septic systems in zone A of Stafford Lake.                                                                                | Seek voluntary repair of failing septic systems through a low interest loan program to qualified residents on Stafford watershed.                                                     | \$50,000  | 2000 |
|                                                               |    | 53000 | North Marin Water District           | 2110003 024        | Microbial pollution potential from older sewage collection system/force main serving golf course on watershed of Stafford water treatment plant. | Update system to current standards with pumping redundancy and spill protection.                                                                                                      | \$100,000 | 2000 |
|                                                               |    | 53000 | North Marin Water District           | 2110003 021        | Microbial pollution potential from old park restroom facilities in zon A of Stafford Lake.                                                       | Design and construction of new waste holding systems as a cooperative effort with Marin County Parks.                                                                                 | \$250,000 | 2000 |
| <b>Total of projects in SWPP Category SWPP-H= 22 projects</b> |    |       |                                      |                    |                                                                                                                                                  |                                                                                                                                                                                       |           |      |
| <b>Total Cost for Projects in Category SWPP-H:</b>            |    |       |                                      | <b>\$2,718,000</b> |                                                                                                                                                  |                                                                                                                                                                                       |           |      |
| SWPP-I                                                        | 5  | 7200  | Los Osos Community Services District | 4010016 002        | Evaluation of Agricultural practices-See attachment A                                                                                            | See attachment A                                                                                                                                                                      | \$100,000 | 2001 |
| <b>Total of projects in SWPP Category SWPP-I= 1 project</b>   |    |       |                                      |                    |                                                                                                                                                  |                                                                                                                                                                                       |           |      |
| <b>Total Cost for Projects in Category SWPP-I:</b>            |    |       |                                      | <b>\$100,000</b>   |                                                                                                                                                  |                                                                                                                                                                                       |           |      |

| SWP                                        | BP | Pop. | WaterSystem Nam | Project No | WS Problem   | Project Description | Costs | FY |
|--------------------------------------------|----|------|-----------------|------------|--------------|---------------------|-------|----|
| Number of projects in SWP PPL= 67 projects |    |      |                 |            | Grand Total: | \$50,637,000        |       |    |

**Notes:**

This list was prepared in accordance with the 2003 IUP Section VI. Project Priority List; the listing exceeds the 5% of federal funds (\$4,123,045) set aside in the FFY2003 grant application for this purpose. This list may include projects for which funding offers have already been made, projects which have subsequently been withdrawn from the list; and projects which are no longer eligible for DWSRF funding or have obtained alternate funding. Only a portion of this list may be offered the opportunity to apply to receive funding. By December 30, 2005, DHS intends to issue NOAAs in an amount equal to \$4,123,045 exclusively from federal funds from the FFY 2003 DWSRF Grant for SWPP projects.